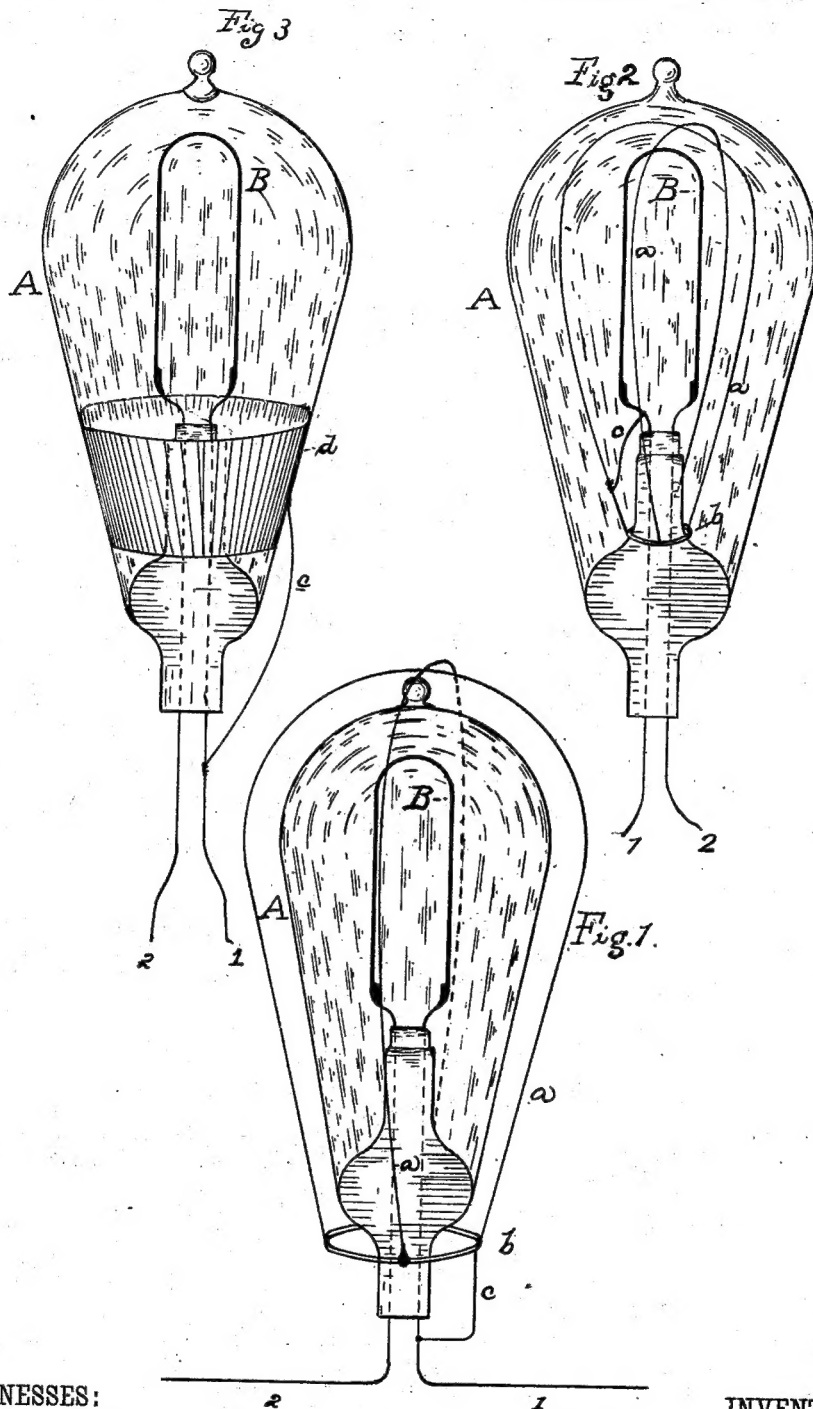


(No Model.)

T. A. EDISON.  
INCANDESCING ELECTRIC LAMP.

No. 268,206.

Patented Nov. 28, 1882.



WITNESSES:

*E. C. Rowland*  
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INVENTOR:

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# UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY.

## INCANDESCING ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 268,206, dated November 28, 1882,

Application filed October 12, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Incandescing Electric Lamps, (Case No. 479,) of which the following is a specification.

In the use of incandescing electric lamps in which a carbon filament is inclosed in a glass globe difficulty may sometimes be experienced, caused by the attraction of particles of carbon to the globe, which results in the gradual wearing away of the carbon, and in the blackening of the globe by the deposition of carbon particles thereon. The earth and the atmosphere which surrounds the lamp are charged with electricity opposite to that of the wires of the system and the carbon filament, and therefore the glass of the globe becomes charged with such opposite electricity, so that a static attraction exists between the carbon and the glass, and the heated carbon particles may be attracted by said glass.

The object of my invention is to avoid, as far as possible, such difficulty; and to this end I provide, in connection with a lamp, means for neutralizing, as far as possible, this static attraction. Such means consists of a body or bodies of metal or other conductor of electricity connected with one of the conductors leading to the carbon filament, and surrounding the globe, or situated at several different points around the globe, or placed within the globe and around the filament. Such metal, becoming charged with electricity of the opposite kind to that with which the glass is charged, neutralizes the static attraction and prevents the removal of the particles of carbon.

The preferred manner of carrying out my invention is to place over the lamp a wire cage consisting of two or more wires bent over the top of the lamp, with their lower ends all attached to a metal ring encircling the lower part of the lamp, a wire from said ring being connected to one of the conductors leading to the lamp; or such wire cage could be placed within the lamp with the wires bent over the

filament, and attached to one of the leading-in wires of the lamp; or, instead of using the wire cage, a sheet of tin-foil may be wrapped around the outside of the lower part of the globe, and connected with one of the conductors with the same result.

Instead of metal wires, carbon or other conductor of electricity may be used.

In the drawings, Figure 1 represents that form of my invention in which the wire cage is placed outside the globe; Fig. 2, that in which said cage is placed within the globe, and Fig. 3 that in which the tin-foil is wrapped around the lower part of the globe.

A is the inclosing glass globe, and B the carbon filament. 1 and 2 are the conductors leading to the lamp.

In Fig. 1 a metal ring, *b*, preferably nickel-plated, encircles the lower part of the lamp, and is connected by a wire, *c*, with conductor 1, and nickel-plated wires *a a*, attached to said ring, are bent over the top of the globe. In Fig. 2 the wires *a a* are attached to the ring *b* within the globe, and wire *c* runs to one of the leading-in wires of the lamp. In Fig. 3 a piece of tin-foil, *d*, is wrapped around the globe below the filament, so as not to obscure the light, and wire *c* runs from the tin-foil to the conductor 1.

It is evident that the connection by wire *c* may be made with either of the leading-in wires of the lamp.

What I claim is—

1. The combination, with the inclosing globe and carbon filament of an incandescing electric lamp, of means for neutralizing the static attraction between the carbon and globe, substantially as set forth.

2. The combination, with the inclosing globe and the carbon filament of an incandescing electric lamp, of a body or bodies of metal surrounding said filament, or placed at different points around said filament, and connected to one of the conductors leading to said filament, substantially as and for the purpose set forth.

3. The combination, with the carbon filament of an incandescing electric lamp, of a wire cage

placed over and around said filament, and connected with one of the wires leading to said filament, substantially as set forth.

4. The combination, with an incandescing  
5 electric lamp, of a metal ring encircling the lower part of said lamp, and connected to one of the conductors leading to the lamp, and two or more wires bent over the top of the

lamp, with their ends attached to said ring, substantially as set forth.

This specification signed and witnessed this  
10th day of October, 1882.

THOS. A. EDISON.

Witnesses:

H. W. SEELY,  
E. H. PYATT.